

TELECOLLABORATIVE LANGUAGE STUDY: A PERSONAL OVERVIEW OF PRAXIS AND RESEARCH [1]

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I. INTRODUCTION

Telecollaboration involves the application of global computer networks to foreign and second language learning and teaching in institutionalized settings (Belz, 2003a, p. 2 (<http://ilt.msu.edu/vol7num2/speced.html>); Kinginger, 2004, p. 101; Belz & Thorne, to appear). In telecollaborative partnerships, internationally-dispersed learners in parallel language classes use Internet communication tools such as e-mail or synchronous chat in order to support social interaction, dialogue, debate, and intercultural exchange with expert speakers of the respective language under study (Avots, 1991; Cononelos & Oliva, 1993; Fischer, 1998; Furstenberg, Levet, English, & Maillet, 2001 (<http://ilt.msu.edu/vol5num1/furstenberg/default.html>); Kern, 1996; Kinginger, 1998; Müller-Hartmann, 2000a; O'Dowd, 2003 (<http://ilt.msu.edu/vol7num2/odowd/default.html>); Warschauer, 1996; von der Emde, Schneider, & Kötter, 2001). The underlying rationale is to provide the members of each parallel class with cost-effective access to and engagement with age peers who are expert speakers of the language under study in an effort to increase intercultural awareness as well as linguistic proficiency, to increase the authentication of foreign language (FL) use in the tutored setting, and to broaden the range of discourse options and subject positions available to classroom learners of language (Kern, 1995, p. 466; Kinginger, 2004, p. 101). In sum, telecollaboration is characterized by institutionalized technology-mediated *intercultural* communication for the purposes of FL learning and the development of intercultural awareness (Byram, 1997; Harden & Witte, 2000; Kramsch, 1998).

The purpose of this paper is to provide an overview of the research that I have conducted over the last five years (2000-2004) in conjunction with colleagues in both the United States and Europe on telecollaboration at the university level. Some of this research has been part of a larger, collaborative effort, *The Penn State Foreign Language Telecollaboration Project* (<http://language.la.psu.edu/main.php?id=31>), a three-year (2000-2002), cross-linguistic project designed to investigate the effects of technology-mediated language use on FL learning processes and learning outcomes among intermediate-level learners. [2] An additional goal of the project has been the establishment of optimal practices and models for the incorporation of telecollaborative study into the language curriculum.

For each of three years, Penn State students enrolled in experimental sections of intermediate-level French, German, and Spanish courses were partnered with expert speakers of their respective FLs via a wide array of tele-technologies in order to pursue web-based collaborative research on popular culture themes. In addition, control sections were conducted at the Penn State location in each of these three languages in which learners followed the same syllabus as in the experimental sections minus the telecollaborative component. Thus, the major project variable was the presence or absence of technology-mediated *intercultural* interaction among learners and expert speakers of the languages in question. (It should be noted that the student participants in Europe were all learners of English; thus, learner English comprises at least half of the discourse examined in this project.)

At the beginning and at the end of their language courses, students in the experimental and control sections participated in an array of quantitative assessment measures including Oral Proficiency Interviews (OPIs), the Beliefs About Language Learning Inventory (BALLI), the Cross Cultural Adaptability Inventory (CCAI), a locally developed writing diagnostic, and the Contextualized Speaking Assessment (CoSA) of the Minnesota Language Proficiency Assessments (<http://www.carla.umn.edu/assessment/MLPA.html>). Students also completed biographical and technology skills surveys and participated in post-telecollaboration focus group interviews. Additional ethnographic data sources for the German experimental and control sections include detailed instructor field notes, formative and summative learner portfolios, responses to cultural surveys, learners' class work, and video-tapes of classroom sessions. Finally, and perhaps most importantly, all telecollaborative discourse produced by both the learners in the U.S. and the expert-speaking partners in Europe was archived and stored in an electronic database.

In the remainder of this article, I will present an overview of the research findings to date with respect to the German component of this grant. I will also report on two additional years of German-American telecollaboration, i.e., a total of five data collection cycles. The following aspects will be addressed:

- a pedagogical description of telecollaboration (section II);

- an investigative methodology for telecollaborative social action (section III.B);
- the socio-cultural origins of telecollaborative best practices (section III.C);
- the use of telecollaborative discourse in the construction of a contrastive learner corpus (section III.D);
- the development of socio-pragmatic competence in telecollaboration (section III.E).

In a final section, I will outline some areas of telecollaborative FL study that remain under-explored and will suggest avenues for future research.

II. THE PEDAGOGY OF TELECOLLABORATION

A. Rationale

The underlying pedagogic rationale for telecollaborative language study, according to Kinginger (2004, p. 101), is rooted in the practices of direct intercultural exchange in FL teaching (Freinet, 1994) and is an outgrowth of "perennial concerns within communicative language teaching for authenticity of learning tasks and materials, variety of discourse options, the significance of learners' epistemic roles in the classroom..., and the role of the classroom in fostering language awareness...and learner autonomy..." The approach is further grounded in the philosophical position that language and culture are bound together in an inextricable relationship, hence Agar's (1994, p. 60) term "languaculture" (see also Fantini, 2000; Fowler, 1996; Halliday, 1994; Kramsch, 1993). Within such a framework, language is not conceptualized merely as a checklist of grammatical points to be isolated and transmitted to the learner and later assessed in the form of discrete-point tests, but rather as social practice itself. As a result, the learning of another grammar is simultaneously an exploration of a particular "theory of human experience" (Halliday, 1990, cited in Kramsch, 1993, p. 8) as manifested in language. In a humanistically-oriented curriculum, the exploration of an alternative *Weltanschauung* is not necessarily an end in and of itself but may (and should) serve as a vehicle for the exploration of the self, for seeing the world through the other's eyes (Bakhtin, 1986, pp. 6-7; Kramsch, 1993, p. 222; see also Furstenberg, Levet, English, & Maillet, 2001, p. 58; Kinginger, Gourvés-Hayward, & Simpson, 1999, p. 854), and for creating a "third place" (Kramsch, 1993, pp. 233-259) from which the learner may begin to understand the relativity of his or her own linguistically-mediated signs within a "galaxy of [foreign language] signifiers" (Barthes, 1974, p. 6). Telecollaborative language study is one site, as we shall see below, where theory hits the street, sometimes in a rather explosive fashion, with respect to a number of these educational concerns.

B. Course Design

B.1 The choice of communicative medium

There are a number of crucial features to consider in course design for telecollaborative language instruction. Despite the rapid growth of the Internet and the use of Internet communication tools at the end of the 20th century, there remains a distinct digital divide in many regions of the world (Warschauer, 2002, 2004). Government statistics reveal, for example, that discrepancies in technological outfitting and access can exist even between highly industrialized populations such as the United States and Germany. Belz, 2001, p. 225; 2002a, pp. 67-68 (<http://ilt.msu.edu/vol6num1/BELZ/default.html>) describes how such societal and institutional mismatches in access to technology influenced language learning and intercultural exchange at the micro-interactional level (see also Meskill & Ranglova, 2000, p. 34; Warschauer, 1998). As strong as the draw toward the latest technological advances on the technologically most advantaged side of a telecollaborative partnership may be, best practices may demand the use of the lowest common technological denominator for successful keypal interactions.

B.2 The use of parallel texts

The educational goal of leading students to "possess other eyes, to look at the universe through the eyes of others" (Marcel Proust, cited in Furstenberg et al. 2001, p. 58) has been facilitated, in large part, through the use of parallel texts (Bauer et al., to appear; Kinginger, Gourvés-Hayward, & Simpson, 1999, pp. 858-860; Kramsch, 1993, p. 231). Parallel texts are linguistically different renditions of a particular story or topic in which culturally-conditioned varying representations of that story or topic are presented. A good example for the case of German-American partnerships would be the original, German version of the fairy tale *Aschenputtel* as recorded by the Brothers Grimm and the animated Disney movie *Cinderella*. In the original, German-language tales, the world is a dangerous and relatively realistic place in which adults and children alike may suffer terrible consequences, such as mutilation by animals, if they do not behave in accordance with societal norms and moral expectations. To illustrate,

the evil step-sisters in *Aschenputtel* are punished for their behavior when their eyes are picked out by a flock of doves at the end of the tale. In the Disney version, on the other hand, animals are portrayed as anthropomorphized side-kicks, ever ready to lend Cinderella a household hand with a smile on their cute little faces and a song on their human-like lips.

In telecollaboration, both groups of students read each parallel text, one in their first language and one in the language they are learning. The pedagogical goal is to not only get the students to simply notice the differences, but to examine how the differences are construed linguistically, to explore the socio-historical factors which may have led to the differences, to imagine what it might be like to live out one's days with other eyes, and, perhaps most importantly, to critically reflect on the ways in which others might evaluate the students' own culture(s) based on the texts produced by that culture. What does the 'translation' of the dangerous doves into musical mice reveal about mainstream US American attitudes and culture? The ability to display critical awareness of this nature is one of the goals of telecollaborative language study in particular and of (foreign) language study in general. Byram (1997, p. 22) succinctly describes such educational goals as "the relativisation of what seems to the learners to be the natural language of their own identities, and the realisation that these are cultural, and socially constructed". He considers their attainment by the learner to be the very definition of FL teaching as well as a critical component of the broader, humanistic endeavor in the academy at large (ibid., p. 33).

B.3 The role of reciprocity

Two further design features of telecollaborative instruction are based on the principle of reciprocity in tandem learning (Little & Brammerts, 1996). According to this principle, successful learning in tandem is contingent on the reciprocal dependence and mutual support of each partner. Each learner is expected to contribute to the partnership and to benefit from it. Thus, the bilingual format of telecollaborative learning follows directly from the principle of reciprocity. In my own partnerships, 50% of each telecollaborative correspondence is conducted in German and 50% is conducted in English (see also Appel, 1999; Kinginger, Gourvès-Hayward, & Simpson, 1999; Kötter, 2003; cf. Bauer, deBenedette, Furstenberg, Levet, & Waryn, to appear). In this way, each partner functions as both a linguistic model and a cultural resource for the other. He or she also occupies the role of learner in each interaction, thereby increasing the number of subject positions or *epistemic roles* occupied in any one encounter (Nystrand, Gamoran, Kachur, & Prendergast, 1997). Telecollaborative interaction, however, constitutes only one type of interaction in a telecollaborative partnership. On those classroom days on which students are not corresponding with their partners, classroom interaction occurs primarily in the respective FL.

The course requirement that learners spend 50% of each telecollaborative interaction using L1 is certain to cause concern among those language teaching professionals who adhere to a strict L2-only policy in their classrooms (Cook, 2001; 2002, p. 329). However, as I have discussed in some detail elsewhere (Belz, 2002b, 2003c), the ban on the L1 in the language classroom is an artifact of the myth of the deficient communicator whereby the L2-speaking learner is conceptualized as a "coarse and primitive character" who must "go through the stage of being a half-wit" in order to be a "wit" in the FL (Harder, 1980, pp. 268-269). In point of fact, the efficacy of L2-only practices in the FL classroom with respect to second language acquisition has yet to be borne out by the published research, (Platt & Brooks, 1994; Qi, 1998, p. 492), while explorations of *multiple* language use have shown the *multilingual* language learner to be a richly textured linguistic practitioner (Belz, 2002b, 2002c; Belz & Reinhardt, 2004; Pavlenko, 1998).

The principle of reciprocity also accounts for the way in which corrections of inaccuracies are handled by the partners in each telecollaborative correspondence. Typically, learners negotiate the method of correction at the outset of their partnership and are guided by their instructors to offer a reasonable amount of corrections per interaction in a variety of linguistic domains (e.g., syntactic, morphological, orthographic, idiomatic, and pragmatic).

B.4 The role of the teacher

The final design feature involves the relative prominence and importance of the instructor in telecollaboration. At the onset of advances in computer-assisted language learning (CALL), some researchers maintained that the

teacher was to be re-conceptualized as a "guide on the side" rather than as a "sage on the stage" in the technology-enhanced language classroom (Fitch cited in Tella, 1996, p. 6; see also Teles, 2000). Administrators, in particular, were encouraged by this prognosis as they sometimes saw in it the potential for fiscal well-being via a reduction in the number of student-teacher classroom contact hours (Belz, 2003b, p. 92 (<http://ilt.msu.edu/vol7num2/belz/default.html>); Chapelle, 2003, p. 72; Königs, 2003, p. 240). Müller-Hartmann (2000b, to appear), however, argues convincingly that the role of the teacher is intensified rather than diminished in telecollaborative instruction (see also Kern, 1996, p. 108; O'Dowd and Eberbach, 2004; Ware & Kramsch, 2005). Belz & Müller-Hartmann (2003, p. 85), for instance, have suggested that the absence of paralinguistic meaning carriers in many forms of telecollaborative interaction has highlighted the importance of teachers' expert knowledge of culturally specific discourse patterns for the successful negotiation of learning in telecollaboration.

C. Description of German-American Telecollaboration

For each partnership from 2000-2004, a fourth-semester German course in the U.S. was linked electronically with an English teacher education seminar in Germany. [3] The learners in the U.S. were typically at the Intermediate level on the ACTFL proficiency scale, while the learners in Germany were more advanced in their use of English (Belz, 2001, p. 224). The US course met four days per week for 50 minutes a day in 2000-2002. Classroom periods were extended to 75 minutes in 2003 and 2004 to provide less proficient American students with more time to read and compose FL messages. The teacher education seminar met one day per week for two hours. The courses were purposely scheduled so that they co-occurred in real time one day per week. This enabled learners on each end of the partnership to participate in synchronous forms of communication, if they so desired. In each year, the partnership consisted of four distinct phases.

C.1 Phase I

During Phase I (late August to mid-October), the German university was not in session. In this pre-telecollaboration period, the US students engaged in activities designed to sensitize them to various aspects of intercultural communication, i.e. "the study of distinct cultural or other groups in interaction with each other" (Scollon & Scollon, 2001b, p. 539), and to prepare them for transatlantic tasks during the telecollaborative segment of the course. The first of two main activities during this period was the intra-class collaborative construction of Web Project I. The project was designed, on the surface, to introduce the learners themselves as well as various US local cultural phenomena to their German keypals. It consisted of two parts: an individually authored, bilingual 'web-biography' and a group-authored webpage on some aspect of local university life.

Der Studentenausweis

Als PSU Studierende sind unsere Studentenausweise uns sehr wichtig, weil wir jeden Tag diese Ausweise benutzen müssen. Wir können vieles mit diesem Ausweis erledigen. Erstens ist er ein Schlüssel für unsere Studentenheime. Zweitens ist er ein Essencoupon für die Mensa. Drittens ist er eine Bibliothekskarte, die man benutzt, wenn man Bücher von der Bibliothek ausleihen will. Weiter müssen Studierende diesen Ausweis aufzeigen, wenn sie einen Test schreiben, ein Footballspiel ansehen, oder zum Arzt gehen. Zuletzt hat der Ausweis ein "Lioncash Chip." Erstens dürfen wir mit Lioncash Wäsche in den Waschmaschinen in unseren Studentenheimen waschen. Zweitens können wir damit photokopieren. Außer der Mensa gibt es andere Cafes, wo wir unser Lioncash benutzen können. In [the Collegian](#), unsere tägliche Studentenzeitung, gibt es weitere Informationen zu dem Studentenausweis.

Der Studentenausweis bedeutet, dass wir Mitglieder einer akademischen Gemeinschaft sind. Just as our Passport identifies us as citizens of the United States and our drivers' licenses identify us as members of a specific state, our Penn State student ID identifies us as members of a large educational community.



Four examples of typical themes for the second part of the overall site are given below:

Football games

BEAVER STADIUM & FOOTBALL

Hier ist ein Foto von Beaver Stadium. In Beaver Stadium spielt unser "Football Team." In den USA ist Football sehr Populär. Viele Leute unterstützen eine bestimmte Mannschaft. Es gibt viele fans, die sich Penn State entscheiden! An der Penn State Universität ist Football sehr wichtig, weil unser Mannschaft eine gute Geschichte hat. Am meistens haben sie gewonnen. Aber dieses Jahr ist verschiedene als andere, weil wir viele Spiele verloren haben. Die ganze Universitaet ist entaeuscht, aber wir wissen, dass die Mannschaft mit aller Kraft schwer versucht.

Es gibt fast 100.000 Sitzplätze in Beaver Stadium und das Gebäude wird sogar vergrößert. Es ist sehr wichtig, dass es genug Plätze gibt, weil so viele Leute Football mögen! Die Karten für die Spiele sind wirklich teuer und schwer zu bekommen. Darum wird das Stadium vergrößert. Auf diese Weise verdient die Uni Geld und sie kann dieses Geld für andere Programme verwenden.

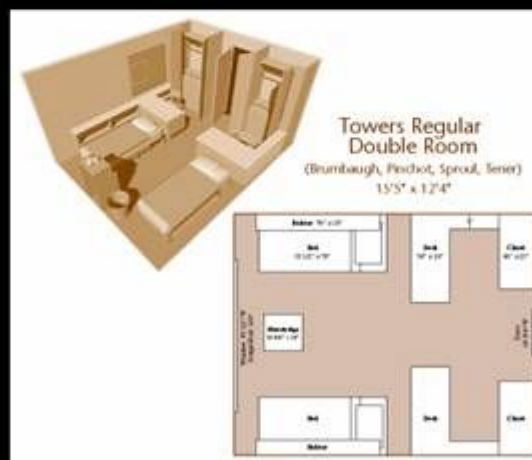
Braucht ihr mehr Information? Click [HIER](#)



Dorm life

interact. Some examples are the dining halls, the game room, the gym, and even a computer lab. There's also a study area for students who need someplace quiet to do their homework. In East Halls, our Commons has four places where you can get something to eat. The Dining Halls is probably the most frequented, though in our opinion, the quality of the food there is the lowest. One of the most popular places to eat is a pizza shop called "The Big Onion." There is also a sandwich shop called "Fresh" and an Italian Eatery called "Checkers." Outside the commons building is an area called "[the quad](#)," Here there is a volleyball court and lots of space where people through footballs, baseballs, and frisbees around.

The Rooms in East Halls are rather small, but you can make up your own mind... here's the dimensions!



School Spirit

So what is this school spirit deal all about?



Would you like to know what possesses a normal college student to dress like the one shown above? You can check out an interview with a true Penn State Fan [HERE](#) and find out what it's all about!

Would you like to know more about our football stadium? [CLICK HERE](#) to read about it!

Our mascot is the [Nittany Lion](#)! Don't know what a Nittany Lion is? Find out more!

[The Cheerleaders](#) cheer on the team!

The [BLUE BAND](#) keeps the crowd excited and motivates the team.

The larger purpose behind Web Project I, however, was to facilitate the beginning stages of critical self-reflection through FL study. For example, students were led to question the seeming universality from their perspective of their own way of life during the preparation of their web-biographies each time they learned that there really was no way to say “fraternity,” “cheerleader,” or “school spirit” in German. They were guided by their instructor to realize that the mere choice of topics for part two of Web Project I was an act of on-line identity presentation (Lam, 2000, 2004) in that it reflected a particular, not a universal cultural reality, e.g., German students would not post digital photos of a football game as a means of introducing their university to the outside world.

American students were asked to consider what image they might be creating of themselves from the perspectives of their German partners by focusing on sports instead of academics in their web-based introduction of their *university* to their German keypals. One telling anecdote for the *cultural faultlines*, i.e. “rupture points” (Kramsch, 1993, p. 206), that may be exposed in such online interactions came in 2000 when the US students chose an image of their beloved team mascot, the Nittany Lion, for the main page of their overall website.

Nittany Lion



Some German keypals responded by asking them why they have a picture of a child's stuffed *bear* on their homepage. One of the main goals of such an intercultural learning partnership would be to get the US students to understand that they should not be offended by their keypals' question because not everyone in the world knows who or what the Nittany Lions are and, more importantly, to enable them to respond to such a query in a culturally appropriate way in the FL. The educator's dream is that the ability to adopt such a third place at this locally-relevant level, if achieved, might carry over into other aspects of the students' later lives for other topics in other contexts where the interactional stakes might be considerably higher (see the *New London Group*, 2000, p. 35, for "transformed practice"). Belz & Müller-Hartmann (2003, p. 73) borrow the term *rich points*, i.e. "those pieces of discourse, such as patterns of communication, lexical items, or syntactic structures, which indicate that two different...conceptual systems...have come into contact", from Agar (1994) as an alternative, and perhaps less disputatious, way of conceptualizing cultural faultlines.

The second main activity during Phase I was the reading and critical assessment of the parallel texts (Auerbach, 1990; Härtling, 1997; Mendes, 1999; Schmid, 1995; Woodson, 1998) during intra-class discussions. Among other things, students were required to maintain journals in which they reflected on their reading and to generate questions concerning segments of the parallel texts where rich points were at issue for examination with their partners during Phase II. In addition, learners gained factual knowledge about their keypals (e.g., Noack, 1999, on the differences between the German and the American educational systems) so that they might be better prepared to understand their partners' potential behaviors. Learners in the U.S. were also sensitized to the notion of intercultural communication in general by means of factual reading on the topic (Kotthoff, 1989; Scollon & Scollon, 2001a), discussion, and exemplification. For example, in the 2004 partnership, students in the U.S. discussed the differences in German and American conversational styles with respect to directness and indirectness (Byrnes, 1986). Such an activity is especially important if participants are located in culturally and/or linguistically homogeneous regions in which they have had few previous opportunities to engage in intercultural communication. In my own partnerships, it was frequently the case that the telecollaborative partnership constituted either the first or the most extensive interaction that the learners had *ever* had with a person from another culture (Belz & Reinhardt, 2004, p. 333; Kinginger, Gourvès-Hayward & Simpson, 1999, p. 855). Thus, the potential for telecollaboration to provide teacher-

guided, intercultural experiences for those learners who might otherwise not have the opportunity to gain such experiences cannot be under-estimated. During this phase, students received both traditional and computer-mediated instruction and they worked alone, in pairs, in small groups and in whole-class configurations.

C.2 Phase II

Phase II (mid-October to mid-November) was characterized by telecollaboration. On the first day of their semester in mid-October, the German students picked a partner in the U.S. with whom they were to correspond for the duration of the project, based on their explorations of the US students' web-biographies. In all years, 'first contact' was made by the German students via e-mail within the teleconferencing program *FirstClass*. During the latter period of telecollaboration, learners also used the synchronous chat function of *FirstClass* as well as AOL Instant Messenger (IM).

Initial correspondence was typified by getting to know one another. Students exchanged personal information about their families, interests, and university life. They were guided in their initial exchange to negotiate 'rules of engagement' with respect to linguistic corrections in subsequent correspondence. Next, keypals explored the second part of Web Project I as a basis for learning about their partners' educational systems and institutional cultures. Americans were typically amazed that German institutions do not have football teams, and Germans frequently were shocked to learn about the costs of higher education in the U.S. The goal of telecollaboration, however, was not merely to obtain factual information about the other. A telecollaborative partnership would be marginally successful, from my perspective, if the learning were to stop at this level (Kern, 1996, p. 117; O'Dowd, 2003a (<http://lilt.msu.edu/vol7num2/speced.html>)). Such disclosures of information should lead participants to consider the relative as opposed to universal nature of their own cultural realities and to understand "foreign" behavior relative to "foreign" frames of knowledge and "foreign" contexts" (Bennett, 1993, p. 43; Byram, 1997, p. 50).

Prior to discussions of the parallel texts, each group of students in 2002-2004 completed a web-based cultural survey similar to the surveys used in the *Cultura* project (Furstenberg, Levet, English, & Maillet, 2001; Furstenberg, this volume). The survey consisted of approximately 20 questions about themes addressed in the parallel texts. For example, students were asked how they would define a family, how they would define a foreigner, and if they would visit a nude beach. German students responded to the questions in German while US students responded to the same questions in English. In this way, each group provided their partners with linguistic models for the pending discussion of central themes in the parallel texts. German and English answers to the survey appear on the computer screen in adjacent columns.

Telecollaboration Project - Fragebogen

PENN STATE Center for Language Acquisition

Telecollaboration Project - Fragebogen

Klicken Sie auf die entsprechende Nummer, um die jeweiligen Gesamtergebnisse für jede Frage zu sehen.

Fragen/Questions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Deutsche Ergebnisse - 2. Frage Meine Meinung nach sind Amerikaner:	American Results - Question 2 In my opinion, Americans are:
<ul style="list-style-type: none"> ●ein lustiges Völkchen. Sie sind oftmals oberflächlich, also bei ersten Begegnungen sehr offen. Mann kommt schnell mit ihnen ins Gespräch. Sie sind sehr Hilfsbereit aber auch manchmal verschlossen und engstirnig in vielen Dingen. ●Amerikanische Staatsbürger, die in den USA leben oder ihre Kultur und Sprache hoch halten. ●Nach meiner Erfahrung kann ich sagen, dass Amerikaner sehr freundliche Menschen sind. Sie sind im allgemeinen sehr religiös. Darauf, dass sie Amerikaner sind, sind sie stolz. Sie sind meist sehr auf ihr Äußeres bedacht. Amerikaner sind sehr fleißig und zielstrebig. ●Amerikaner gehören wie wir, der westlichen Kultur an. Jedoch unterscheiden wir uns in einigen kulturellen und gesellschaftlichen Punkten, was ich gut und spannend finde. ●Amerikaner sind in Deutschland Ausländer, wenn sie die eben genannten Kriterien nicht erfüllen. ●Menschen wie alle anderen auch. Ich habe keine "Vorurteile" was bestimmte Staatsbürger angeht. Zumal man heute nicht mehr sagen kann, dass Amerikaner oberflächlich sind, Deutsche pünktlich und Spanier leidenschaftlich. In allen Ländern gibt es Menschen auf die diese Beschreibung passen würde. Ich kenne Amerikaner zu wenig und zu wenige um mir ein Urteil erlauben zu können. 	<ul style="list-style-type: none"> ●We are very proud and selfish. Yet at the same time we are a model to others; we represent the ideas of freedom and hard-work. Americans like to keep very busy; this is good and bad. We are doing useful things and bettering ourselves, but at the same time we sometimes forget other important things. ●a collective term for many groups of people with various beliefs and cultural traditions, who are united by their place of residence and respect for US laws and ideals of freedom. Other unification factors include dominant use of English language, mandatory school education, etc. one cannot describe an American, since Americans come in all shapes and sizes there are. One might successfully attempt to define a resident of a particular part of the country or a member of a certain social group, yet not Americans as a whole. ●Americans are people with United States citizenship. There are many different "types" of Americans and to generalize Americans as a whole is impossible. We are a country of immigrants, coming from every corner of the world. One might argue that we all believe in the constitution and in our government. However this is not true, many Americans have different ideas about our law and government system. To put it simply, there is no exact, brief description of an American. I must mention that it is my opinion that certain people whom burn American flags in the streets of New York after 2 buildings were blown up are not Americans. (though they may call themselves Americans and want to claim American rights).

This layout facilitated a comparison of the varying responses to the same questions with respect to language and content as well as national origin of the participants. It also dispelled a potential tendency to engage in essentialism and generalize along national lines (i.e., Germans vs. Americans) since learners could locate divergent viewpoints in any one column (intra-national) and similar viewpoints in adjacent columns (inter-national).

Finally, learners engaged in teacher-guided discussions of the parallel texts, which included films. A representative example of such a task is a comparison of several scenes from the German-language children's novel *Ben liebt Anna* (Härtling, 1997, pp. 7, 78-79) with their English-language counterparts in the novel's English translation *Ben Loves Anna* (Auerbach, 1990). For instance, Ben and Anna swim together in a lake without clothes in a crucial scene of the original German-language novel. In the English translation, however, the nudity is deleted, and the main characters jump into the lake together fully clothed. Anna then tells Ben that his mother will be mad at him because he got his clothes wet, lines of dialogue that were never uttered in the original German-language text. Such "telling juxtaposition[s]" (Kinging, Gourvès-Hayward & Simpson, 1999, p. 853) should and do lead to discussions of the relativity of constructs such as prudery, modesty, religion, sexuality, and censorship in the cultures under study. Because these same themes had been addressed in the cultural surveys, learners can compare major trends in their own previously recorded responses to these issues with the ways in which these same issues are treated in the books and films. On the days on which the American learners were not telecollaborating with their keypals, they examined excerpts from their intercultural interactions with respect to content, style, and language.

C.3 Phase III

The leading activity during Phase III (mid-November to mid-December) was the construction of Web Project II. While Web Project I was completed by the US students in intra-class small group formats, Web Project II was completed *via* Internet communication tools in transatlantic groups (Belz, 2001). The task in this project was to produce a website that contained a bilingual essay in which learners compared and contrasted characters, themes, and/or constructs from the parallel texts and from keypal interaction. To illustrate, keypals might compare the role of violence in the novel *If You Come Softly* (Woodson, 1998) and in the film *American Beauty* (Mendes, 1999), mother-daughter relationships in *American Beauty* and the German-language film *Nach fünf im Urwald* (Schmid, 1995), or the construct of alterity, i.e. being different, in *Ben liebt Anna* (1997) and *If You Come Softly*. In addition to the formal linguistic and stylistic features of the essay, projects were assessed based on content, discourse grammar, and the demonstration of electronic literacy. Near the end of this phase, the students in the U.S. participated in focus group interviews concerning their experiences in telecollaboration. At the conclusion of Phase III, the American semester came to an end.

C.4 Phase IV

The fourth and final phase of each partnership ran from mid-December to mid-February. Just as the European institution was not in session during Phase I, the American university was not in (the same) session during Phase IV. During Phase IV, Andreas Müller-Hartmann (to appear) and his students, pre-service English teachers, engaged in intensive reflection on critical incidents that occurred in Phases II and III with a view to the development of the necessary competencies that would enable these students to implement telecollaborative language learning partnerships in their future places of employment, i.e. schools.

III. DISCUSSION OF RESEARCH FINDINGS

A. Research Questions

The main research questions with respect to telecollaboration were:

1. How does telecollaborative FL learning differ from conventional FL learning?

This question is addressed in sections III.B through III.E.

2. In what ways does telecollaboration influence learners' linguistic and intercultural development?

This question is addressed in sections III.D and III.E.

3. What are the specific socio-cultural, socio-institutional, socio-historical and technological affordances and constraints operative in telecollaborative partnerships?

This question is addressed in sections III.C, III.D, and III.E.

4. What role does experiential knowledge of telecollaboration and intensive reflection on that knowledge play in pre-service language teachers' decisions to adopt telecollaborative language instruction in their future teacherly practices?

This question is addressed in the publications of Andreas Müller-Hartmann (to appear).

B. Social Realism: Methodology of Investigation for Telecollaborative Instruction

Kinginger (2004, p. 103) notes that “the most salient aspect [of telecollaboration] is the inclusion of other people” in tutored language learning. The other people to whom Kinginger refers are the students and the instructor(s) at the partner institution. Given this learning configuration, telecollaboration is at the same time a form of *intercultural communication*. Nevertheless, much research on telecollaboration focuses on the opportunities presented to learners on one end of the partnership for the negotiation of meaning in the interactionist sense (Kitade, 2000; Toyoda & Harrison, 2002 (<http://ilt.msu.edu/vol6num1/TOYODA/>); Schweinhorst, 2002; Tudini, 2003a (<http://ilt.msu.edu/vol7num2/speced.html>)) to the relative neglect of the ways in which this type of instruction may facilitate the development of intercultural competence, serve as a rich site for the observation of intercultural (mis)communication in cyberspace, or serve as a site for observation of the ways in which languacultural group membership influences the establishment of a

functional telecollaborative partnership. Within such studies, students are often characterized more narrowly as language learners rather than more broadly as human agents in socio-cultural contexts (Belz, 2001, p. 230; Lantolf & Pavlenko, 2001). Furthermore, the foreign partners themselves are often under-specified in that they are thought of less in terms of persons with agency and more as FL ‘input providers’ who are there for the linguistic benefit of the American partners.

Because telecollaboration *is* a form of intercultural communication, its investigation should entail research methodologies, that take social as well as linguistic and cognitive factors and data sources into account. Warschauer & Kern (2000), for example, advocate the application of *socio-cognitive* frames of interpretation to SLA phenomena in general and to network-based language teaching in particular (Kern, Ware, & Warschauer, 2004, p. 244). Socio-cognitive interpretation necessarily entails the complementarity of sociocultural, ethnographic, and qualitative data sources on the one hand, and psycholinguistic, linguistic, and quantitative data sources on the other.

In my own research, I have conceptualized telecollaborative FL study as a type of dynamic and complex *social action* involving persons from different cultures and linguistic groups who are located within differing socio-cultural, socio-institutional and socio-historical contexts *at the time of interaction*. Furthermore, participants’ varying languacultural group memberships are explicitly highlighted for educational purposes (Scollon & Scollon, 2001b, p. 545), but in ways that seek to limit cultural essentialism and investigate diversity. In order to capture the ways in which these factors as well as psychological and psycho-biographical ones may influence such interaction at the microinteractional level, I have borrowed methodological frameworks from a form of sociological inquiry known as *social realism* (Carter & Sealey, 2000; Sealey & Carter, 2004). In this approach, the meanings attributed to particular social actions by the persons involved assume central investigative focus. In particular, I have adapted Layder’s (1993, p. 114) research map for the multi-strategic investigation of social action to telecollaborative FL instruction and learning (Table 1). The essence of this methodology is the inter-relationship of *structure* (context and setting) and *agency* (situated activity and self) as well as time and history in the interpretation of complex social action (Belz, 2001, pp. 214-215; 2002a (<http://ilt.msu.edu/vol6num1/BELZ/default.html>), pp. 61-63; Belz & Müller-Hartmann, 2003, pp. 72-73).

Table 1. Multistrategy Research in German-American Telecollaboration.

Additional Factors	Research Elements	Types of Data	
		Qualitative	Quantitative
HISTORY, e.g., patterns of socialization into classroom FLL	CONTEXT	<ul style="list-style-type: none"> Theoretical/interpretive characterizations, e.g., institutional histories; policy documents; informational interviews with administrators; scholarly publications 	<ul style="list-style-type: none"> Aggregates of individuals in specific social circumstances, e.g., computer ownership by race/ethnicity from governmental statistical databases Traditional quantitative data, e.g., statistical correlations between experimentally controlled variables
	SETTING		
POWER, e.g., student-teacher or NS-NNS differential; learning accreditation pressures	SITUATED ACTIVITY	<ul style="list-style-type: none"> Participant observation Interviews with learners Classroom discourse Learner portfolios E-mail correspondence Chat transcripts Biographical surveys Project assessments 	<ul style="list-style-type: none"> Simple forms of counting, e.g., occurrence of linguistic features in electronic discourse; number of e-mail messages composed per group
	SELF		

(taken from Belz, 2002a (<http://ilt.msu.edu/vol6num1/BELZ/default.html>), p. 62)

An emphasis on the intercultural nature of telecollaborative interaction draws attention to the fact that the investigation of language learning in telecollaboration cannot be restricted to an examination of what Chapelle (2003, p. 98) refers to as “process data” or “records of learners’ language and behavior documented while they are working on computer-mediated tasks.” It must include data sources other than the computer logs produced in telecollaborative interaction in order to explain the complex and dynamic nature of

telecollaboration itself (Warschauer & Kern, 2000, p. 15). The case of Annike, a German learner in the 2000 partnership, will illustrate this point. Annike's process data are limited to a few e-mails that show relatively little negotiation of meaning in the sense of Varonis & Gass (1985) and relatively little curiosity vis-à-vis the other (Byram, 1997, p. 36), despite her stated enthusiasm for the partnership. On the basis of quantitative data on computer demographics at the level of context (non-process data), it became clear that discrepancies between the U.S. and Germany with respect to Internet access might play a role in learners' ability to participate in telecollaboration and thus affect both the quantity and the quality of their input in interactionist terms. Qualitative interview data at the level of agency indicated that this macro-sociological factor had indeed influenced Annike's process data. Annike did not participate in the project to the extent that she would have liked to because computers were not readily available outside of class time in her institutional context and the cost of private Internet access was beyond her means (Belz, 2001, p. 229). Her American partner, who lacked this socio-institutional information, interpreted Annike's infrequent interaction pragmatically as a threat to her positive face and was therefore less likely to attend to opportunities for learning in those instances when Annike did correspond. The case of Annike also represents the multi-faceted, layered, and cyclic nature of data analysis and interpretation that is typical of social realist methodologies.

C. Best Practices for Telecollaboration: Socio-cultural Origins

Suggestions for best practices are grounded in close examinations of the socio-cultural dimensions of lived experiences of telecollaborative language learning and teaching (Freeman and Johnson, 1998) as afforded by social realist investigative methodologies. Table 2 provides a summary of some of the aspects of structure that have been found to shape the partnerships under investigation at the microinteractional level. In each case, the structural aspect in question is listed in the first left-hand column. Next, the ways in which this aspect shaped the functionality of the partnership on each end is described. Then, the concrete linguistic and/or discursive reflex(es) of this shaping at the micro-interactional level (i.e., in the process data) are specified. Finally, varying interpretations of the reflexes are given.

Table 2. The Contextual Shaping of Telecollaborative Discourse at the Micro-interactional Level.

Aspects of Structure	Influence on Partnership	Micro-interactional Reflex of Influence	Participants' Interpretations of Reflexes
Misalignment of academic calendars	Cycles of student enthusiasm and stress levels out of sync with one another	Number and length of telecollaborative interactions during certain periods of time	Lack of participation was related to lack of interest in the partner or dislike of partners instead of to the demands of the syllabus at the respective institution
Value and importance of respective FL in given culture	Varying proficiency levels on each end of partnership	Length, amount, and accuracy of correspondence in L2; sophistication of discussion of parallel texts; number and types of corrections offered to partners	Short e-mails were attributed to dislike of partner or disinterest in the partnership rather than to lower proficiency levels; some partners withheld corrections because they felt they would be too difficult or overwhelming for their partners
Societal norms with respect to technological access and know-	Varying levels of computer know-how on each end of the partnership; varying degree of	Deletion of messages; non-delivery of messages; lack	Low frequency of correspondence (due to

how; cultures-of-use of Internet tools (Thorne, 2003)	access to computers outside of class time; varying appreciations of particular media	of use of certain media; frequency of telecollaborative correspondence	lack of access to computers outside of class) interpreted pragmatically as threat to positive face; use of e-mail interpreted as "old-fashioned"
Institutional and social norms with respect to assessment in university courses; tendency toward frequent, low stakes formative assessment within individual courses in the U.S.; tendency toward high stakes, summative assessment in Germany	Varying levels of importance attributed to classroom tasks and assignments	Varying levels of participation in transatlantic projects	Low frequency of participation understood pragmatically as threat to positive face rather than as contingent upon larger educational system; led to the creation of new, negative stereotypes about the partners, e.g. the Germans are lazy, Americans are only interested in their grades, US univ. is "verschult".
Institutional expectations with respect to course workloads; fewer contact hours per course in Germany	An unmanageable syllabus from the German perspective	Adverbials in the discourse of the teachers which index their attitudes concerning workloads	Led to greater appreciation of the partner's institutional context on the part of the teachers, a revamping of the syllabus in subsequent course iterations and thus the development of ICC
Physical layout of the university: no central campus on the German end with classrooms spread throughout the city; classrooms proximally located on a campus in the U.S.	Functionality of intra-class as well as transatlantic group work	Patterns of participation in group work	Led to greater appreciation of the partner's institutional context on the part of the teachers, a new system of partnering learners and thus ICC
Culturally-contingent styles of conversation	Varying linguistic behaviors at the discursive level	Patterns of directness and indirectness; avoidance of certain topics; varying degrees and kinds of politeness phenomena	Culturally-contingent styles interpreted within local as opposed to foreign frames, e.g. German directness interpreted as rude, American avoidance of certain topics seen as immature
Cultural/linguistic homogeneity of society/institutional contexts	Varying levels of experience with intercultural communication; varying levels of openness and curiosity vis-à-vis the partner	topics of discussion (including taboo topics); Patterns of questioning; lexical choice; use of modality	Inability to ask questions about the other as a marker of disinterest rather than as a lack of intercultural experience

It is very important to understand that these contextually-shaped tensions are not to be viewed as "problems" that need to be eradicated in order to facilitate smoothly functioning partnerships. There are a number of points to emphasize. First, structural differences frequently constitute precisely those rich points that we want our students to explore in telecollaboration (Belz & Müller-Hartmann, 2003, p. 84). For example, if one were to change the nature of assessment in the German seminar such that it matches the type of assessment in the American language course (in an effort to "smooth out" differences in behavior relating to project completion) that would be tantamount to changing the nature of German reality in order to satisfy American needs and

expectations. Similarly, directives to the Germans to decrease the amount of directness in their correspondence undermines the very mission of intercultural learning in the first place, i.e., the ability to interpret the behaviors of the others not with respect to one's own frames of reference, but with respect to theirs. If Germans were told to alter their linguistic identity when communicating with Americans, then how would Americans ever come to consider that their interpretation of directness (namely, as rudeness) may not be a universally valid interpretation? Second, the desire to alter aspects of structure with a view to avoiding or "ironing out" potential points of disagreement reflects what Walther (1996, p. 30) refers to as "a happiness and warmth bias" in much of interpersonal research. From the educational perspective, it is a mistake to assume that smooth, agreeable, and accommodating interactions are the only kinds of learning events from which students may benefit. Sometimes it is the bristling, disagreeable, and disputatious interactions which offer students the most food for thought and the greatest opportunities for self-reflection and change. My point here is not that discord and contention should be allowed to flourish come what may; instead, I wish to emphasize that suggestions aimed at "smoothing over" the structural differences inherent in telecollaboration may, in point of fact, "smooth away" precisely those points of languacultural diversity that such partnerships were designed to explore. A more prudent approach may involve "calculated pedagogical intervention" (Belz, 2002a (<http://ilt.msu.edu/vol6num1/BELZ/default.html>), p. 75) designed to illuminate rather than eradicate potentially volatile yet educationally valuable rich points.

D. Learner Corpus Analysis

For some time now, language researchers have assembled native corpora of machine-readable texts in order to describe more accurately the ways in which speakers use their linguistic resources in context (Biber, Johansson, Leech, Conrad, & Finnegan, 1999; Kennedy, 1998). Language educators have made good use of such corpora in their classrooms, particularly within the field of English language teaching, as a means of providing their students with empirical models of language-in-use (Coffin, Hewings, & O'Halloran, 2004; Conrad, 1999, 2000). Corpus linguist Sylviane Granger (1994, p. 25) argues, however, that "one should not exaggerate the impact of native corpora on foreign language teaching" because such corpora do not necessarily provide access to the actual problems of learners. Granger (ibid.) suggests that, in addition to native corpora, researchers should also compile learner corpora, i.e., electronic databases of learners' interactions in their L2(s), in order to ensure that their linguistic needs are accurately and adequately described as well as met. This enables researchers to ascertain patterns of difficulty in learners' FL development, to attend to them through calculated pedagogical intervention, and to compare systematically learners' L2 productions with expert speakers' productions, provided that suitable expert-speaker corpora are available.

With these and other purposes in mind, my students and I have established *Telekorp* (<http://www.personal.psu.edu/faculty/j/a/jab63/Telekorp.html>), a bilingual contrastive learner corpus, currently estimated at 1,500,000 words and based on the telecollaborative discourse produced in the 2000-2004 partnerships (Belz, Reinhardt, & Rine, 2005). All telecollaborative correspondence has been inputted into relational databases in *Filemaker Pro* and archived according to more than 25 metadata categories including language (e.g., L1 English, L2 English, L1 German, and L2 German), medium (e.g., e-mail, electronic chat, paper-and-pencil writing diagnostics, and learner essays), student type (e.g., expert speaker, learner in experimental section, learner in control section), partnership year (2000-2004), proficiency level, age, gender, and individual student name. At present, the corpus contains telecollaborative correspondence produced by approximately 80 English-speaking learners of German and 100 German-speaking learners of English on a wide variety of contemporary topics in L1 and L2 English and L1 and L2 German, a relative rarity in learner corpus research according to Nesselhauf (2004, p. 129). The *Filemaker Pro* databases may be exported into commercially available corpus tools such as *WordSmith* (<http://www.lexically.net/wordsmith>) (Scott, 2001) and subjected to various types of analyses including frequency counts, lexical collocations, and concordancing.

Telekorp is unique on at least two counts. First, it consists of the electronically mediated discourse of learners and expert speakers engaged in the same communicative events at the same points in time. As a result, researchers are enabled to make direct comparisons of learner and expert speaker language use without the need to assemble control corpora on the basis of data from different sets of speakers participating in different, although comparable, communicative events (Altenberg & Granger, 2001, p. 175; Cobb, 2003, p. 401; Granger, 1998; Granger & Tyson,

1996, Nesselhauf, 2004, p. 130). For example, in Belz (2004b) I ascertained, on the basis of a 13,000-word sub-corpus of e-mail data, that learners and expert speakers of German evidenced marked differences in *da*-compound use, an important linguistic resource for the establishment of textual cohesion. Second, a corpus of telecollaborative discourse provides a longitudinal look at particular learners' development with respect to any searchable corpus item since learner discourse is tracked and archived for the duration of their participation in telecollaboration. Cobb (2003, p. 403) reports that it is characteristic of learner corpus methodology to extrapolate from cross-sectional to longitudinal data in order to address developmental issues with respect to learner interlanguage. Telecollaborative discourse, however, obviates the methodological need for extrapolation since the data are inherently longitudinal, at least for the institutionally-constrained duration of the partnership. As a result, researchers may produce *developmental* studies of L2 use in which precise developmental pathways are suggested for particular learners in particular contexts (Belz, 2004a). These pathways may be interpreted with respect to specific features of the interactions in which the learners and their keypals have engaged, but also in relation to their own agencies and the structure of the contexts and settings in which they are embedded (see section III.B), if corpus-enabled, quantitative data are interpreted in conjunction with the various data sources suggested in the social realist paradigm. Nesselhauf (2004, p. 134) notes that only a few studies in the emerging field of learner corpus analysis have focused on second language acquisition. She further notes that it is "imperative" (ibid., p. 136) for strictly quantitative learner corpus studies to be "left behind" and for more qualitative studies to be carried out, if the field is to advance.

Finally, depending on a number of technological factors, a telecollaborative corpus may provide learners the opportunity to examine systematically their own L2 use on an on-going basis throughout a particular course (Belz & Vyatkina, 2005b). Such an opportunity may facilitate what Poehner & Lantolf (2004, p. 19) refer to as *dynamic assessment*, i.e. "the simultaneous and dialectical integration of assessment and instruction." For example, learners in the 2003 partnership were presented with corpus-driven data on *da*-compound use in telecollaboration. Thus, they were able to compare their own use of the *da*-compounds to that of their expert-speaking keypals as well as to that of other, more advanced learners in their course. This exposure led Lori, an American learner, to include an entry on *da*-compound use in her final course portfolio in which she categorized all the *da*-compounds used by her particular keypals according to syntactic function. In addition, she made a conscious effort to increase the number of *da*-compounds in her own subsequent correspondence and provided documentation of these attempts in the form of annotated e-mails (See Belz, to appear, for a case study of Lori.). By showing these learners the results of contrastive learner corpus analysis, their awareness of the ways in which their L2 use differed from that of expert speakers was raised *on an individual basis*. In this way, pedagogical intervention based on learner corpora may have substantial advantage over the use of larger, pre-collected corpora such as the CANCODE corpus of English (<http://uk.cambridge.org/elt/corpus/cancode.htm>) because learners may notice aggregate development in their own FL production in communicative contexts in which they themselves have participated (Belz & Vyatkina, 2005b). Nesselhauf (2004, p. 139) reports that the use of learner corpora for data-driven learning of this nature "has only been suggested by a few researchers, and so far there have been only a few attempts to actually try it out."

F. The Microgenesis of Socio-pragmatic Competence

According to Crystal (1997, p. 301), pragmatics refers to "the study of language from the point of view of users, especially of the choices they make, the constraints they encounter in using language in social interaction, and the effects their use of language has on other participants in the act of communication." In similar fashion, Rose & Kasper (2001, p. 2) define pragmatics as "the study of communicative action in its sociocultural context." In general, pragmatic competence refers to both the knowledge and the ability of the speaker to engage in appropriate communicative actions with the right people in the right places and at the right times.

Since the regular and systematic inclusion of expert-speaking peers in the FL learning process is a hallmark of telecollaboration, this learning configuration may be of particular relevance for the development of pragmatic competence. While the inclusion of expert-speaking peers may result in the exposure of the learner to a broader range of FL discourse options, it is perhaps an additional aspect of telecollaboration that may constitute its greatest advantage. Learners tend to regard their expert-speaking keypals as "people who matter", i.e. as desirable interlocutors in front of whom they want to maintain positive face. Belz & Kinginger (2002, 2003) have argued that it is precisely this combination – the inclusion of socially-desirable others and the attendant expansion in the range of available classroom participation formats – that may offer specific advantages for the development of pragmatic competence in telecollaboration in comparison with traditional FL instruction (Kingerling & Belz, to appear).

In order to test this hypothesis, Belz & Kinginger (2002, 2003) examined the development of the T/V distinction in pronouns of address over the eight weeks of Phases II and III in the 2000 and 2001 partnerships (see also Kern, 1998). T refers to informal pronouns of address, whereas V refers to formal ones, realized (in the nominative case) as *du* and *Sie* in German. In general, the choice of T indexes informality, solidarity or intimacy, while the choice of V indexes formality, deference or social distance. Pronouns of address represent a valid test case for the influence

of telecollaboration on pragmatic competence for a number of reasons. First, the selection of address form is socially complex because it must be negotiated in light of a broad range of social and contextual considerations, e.g., location of interaction, situation type, political orientation, social status, occupation. Thus, "rules" of choice cannot be codified and are a source of confusion even for expert speakers. Second, traditional classrooms typically display a relatively stable configuration of these relevant contextual factors and, as a result, learners lack access to meaningful variations in address form use, e.g., they may use *Sie* with the instructor and *du* with each other. These relationships typically are stable over the course of their semesters and new interlocutors with whom they would need to negotiate address form choice are rarely introduced into the classroom community. Finally, there generally is an absence of focus on such pragmatic issues in the classroom such that learners are left to fend for themselves in the appropriate disambiguation of T and V in new social contexts. The introduction of telecollaboration into the classroom, however, presents a situation where the pragmatics of the T/V distinction becomes a salient issue for some students. This is because students need to choose the correct form of address in order to maintain good social relationships with their partners.

An analysis that traces the development over time of specific phenomena with respect to the concrete social practices surrounding that development is described by Vygotsky (1978) as *microgenetic* (Lantolf & Thorne, to appear, chapter 5). Telecollaboration offers specific methodological advantages for microgenetic analyses of FL development because all learner interactions with their keypals are automatically logged in digital format for a period of several months. In addition, instructors on both ends of the partnerships served as participant observers who recorded relevant aspects of the learners' classroom interactions. For the case of the T/V distinction, Belz & Kinginger (2002, 2003) examined the chronological production of every single use of the pronouns of address over the 2-month telecollaborative period. For those learners who had not yet grasped this distinction, they found that T and V were typically in free variation at the outset of telecollaboration. For example, Joe, a 20-year-old English-speaking learner of German, uses the T form twice and the V form twice in the space of 15 words in example (3).

(3)
Hast du (2) fuer e-mail schon eingeschrieben? Wenn du (8) das machst, geben sie (12) mir ihre (14) Adresse. Dann koennen wir ausser Klassenzeit einandere sprechen.
Have you [T] signed up for email yet? When you [T] do that you [V] give me your [V] address. Then we can speak to one another outside of class.
(Belz & Kinginger, 2002, p. 204)

Such inappropriate uses of the V form by the American learners frequently resulted in swift corrections by their partners. One such instance of the social practice of *peer assistance* is seen in example (4) below, which represents a synchronous chat between Joe and his female partner, Gabi, at day 34 of the 50-day telecollaborative period.

(4)
Gabi: Did you get my e-mail that I've sent you in our partner folders?
Joe: Ihre Idee ueber 'First Love and how it affects prejudice'.... 'Your [V] idea about...'
Gabi: Joe BITTE nenne mich DU 'Joe PLEASE call me DU.'
Joe: noch nicht, ich habe das Heute noch nicht gesehen. 'not yet, I didn't see that today yet.'
Joe: I'm sorry, i get confused with pronouns sometimes....
Joe: i don't mean to 'Sietzen' you
Joe: I just mix up the words
Gabi: So along which line can we write our thesis? No worries!
Gabi: No worries about you calling me Sie 'you [V]'
Joe: I had a little bit of a mental lapse.... DEINE Idee ueber First Love and how it affects prejudice...hat mir gefallen. 'I liked YOUR [T] idea about...'
Gabi: Great! But I think we need to be more specific in our intro
Joe: We have to make sure, though, that we use examples from both movies AND both books equally.
(Belz & Kinginger, 2002, p. 205)

Immediately before Gabi corrected Joe's use of V in example (4), the two of them had engaged in flirtatious conversation which led to the exchange of phone numbers and the arrangement of a time for a transatlantic telephone call. For the entire telecollaborative period, Joe inappropriately used the V form 12 times. Eleven of his 12 V forms are used prior to the moment of peer assistance in example (4). The single use of V after this moment occurred 13 days later in a synchronous chat with the female partner of another American student (i.e., not with Gabi). It appears that Gabi's directive to "call her T" constituted for Joe a *critical incident* with respect to T vs. V use. During this incident, he experienced first-hand the social consequences of inappropriate V use in a way that

was highly meaningful to him and potentially unavailable to him in the traditional FL classroom. It appears that this critical moment of noticing resulted in a rather abrupt development of the appropriate use of T in the telecollaborative environment for Joe. For example, 6 days later, he writes the following to Gabi in an e-mail:

(5)
Gabi, dieses Wochenende fahre ich nach Philadelphia... ich schicke dir (74) davon eine Postkarte. Was ist deine (80) Adresse?
Gabi, this weekend I'm going to Philadelphia. I'll send you [T-sg.] a postcard from there. What is your [T-sg.] address?
(Belz & Kinginger, 2002a, p. 206)

This example is of particular importance because it mirrors example (3) with regard to both speech act and content. This time, however, Joe appropriately uses T instead of V when he asks Gabi for her address. Belz & Kinginger (2003, pp. 631-640) note three patterns of development with respect to T/V disambiguation following moments of peer assistance such as that given in example (4): abrupt development (5 learners), gradual development (5 learners), and persistent variation (1 learner). Belz & Kinginger (2002, p. 209) conclude that these results indicate that pragmatic competence in the appropriate disambiguation of T/V in German (and French) may not be strictly a function of "rule" acquisition, since rules in this area are indeed difficult to codify. Instead, L2 pragmatic competence with respect to T/V may be more a matter of acquiring an "awareness of [sociolinguistic] complexity, sensitivity to social cues, and the form-meaning pairings that serve to index this knowledge within particular settings." First of all, learners need to understand that pronoun choice does in fact index social identity and that choosing the wrong pronoun (a possibility for which monolingual speakers of English have no experiential knowledge) indexes the wrong social identity and may therefore impede the establishment or maintenance of good social relationships. As we saw with the case of Joe, a learner's arrival at this realization may be facilitated by participation in interaction with people who interest them (Kern, 1996, p. 116). Next, learners need to experience how these communicative resources are deployed and evaluated in different contexts, at different times with different people. In the end, learners' development in this area may be idiosyncratic, shaped by the socio-historical circumstances in which they are located as well as by their own agentive responses to those circumstances (Dewaele, 2004; Kinginger and Farrell, 2004).

IV. FUTURE AVENUES OF RESEARCH

A. Less Commonly Taught Languages

Despite the increased attention to telecollaborative language study in recent years, there remain many under-explored areas of investigation. There are very few published studies on telecollaborative partnerships that do not involve English. Such research is of particular importance given the ways in which socio-cultural and socio-institutional factors have been found to shape learning in telecollaborative partnerships and with regard to the ways in which these same factors have been found to shape the use of technology in general (Kramsch and Thorne, 2002; Thorne, 2003 (<http://ilt.msu.edu/vol7num2/thorne/default.html>); Warschauer, 2002; 2003, p. 47). Along these lines, researchers will also need to explore socio-cultural and socio-institutional aspects of intercultural partnerships that do not cross national boundaries. One example of such a partnership would be the intra-national pairing of learners of one language with heritage speakers of the same language (Blake & Zystik, 2003; Sanaoui & Lapkin, 1992). In addition, increased attention to the inherently intercultural nature of telecollaboration will demand greater theoretical and methodological interdisciplinarity. In particular, investigations in this field will benefit from the research traditions of communication theory (Walther, 2004) and of intercultural communication but also from those of sociology, anthropology, and cultural studies.

B. Data Sources

In addition to these conceptual concerns, there are evidentiary concerns with respect to the data that have been marshaled to index the development of IC in telecollaboration. For example, many studies have relied on content analyses of process data in order to evidence development in this area. It is not always clear, however, why or how particular pieces of data index development. Recently, researchers within social psychology similarly have criticized the under-emphasis of language data in investigations of text-based online communication in non-educational contexts, despite the fact that such communication is free of the

paralinguistic “noise” of speech (Walther, 2004, p. 388). One way forward in this area may be the inclusion of linguistically grounded interpretations of IC that present data in both sequence and aggregation (Belz, to appear). For instance, in Belz (2003b) (<http://ilt.msu.edu/vol7num2/%20belz/>), I have employed appraisal theory as a means of gauging learners’ development of IC from a linguistic perspective. This case study revealed that the two German learners and the one American under investigation had similar rates of *overall* appraisal of foreign (cultural) phenomena in their telecollaborative discourse, but that there were marked differences in the rates of *negative* attitudinal appraisal, with the Germans outstripping the American by a margin of 2 to 1. Correspondingly, the Germans and the American exhibited comparable rates of upscaling evaluations, but the Germans upscaled *negative* evaluations 1.7 times as frequently as they upscaled positive ones, while the American upscaled *positive* evaluations 1.6 times as often as the upscaled negative ones. A change in a learner’s propensity to negatively evaluate phenomena from the other culture over time may provide linguistic evidence for the development of intercultural competence.

C. Multimodal Nature of Telecollaboration

Another methodological concern in the investigation of telecollaborative language instruction involves the multimedia and multimodal character of the telecollaborative classroom in comparison to the traditional language classroom. At any one point in time there are multiple interactions occurring in multiple participation formats in multiple languages and in various media. For example, the American learner Seamus (Belz & Reinhardt, 2004) often had an active IM window open next to his *FirstClass* window as he corresponded with his German keypal. In IM he corresponded with his German-speaking girlfriend (not a member of the telecollaborative class). When Seamus didn’t understand something that his keypal said, he would ask his girlfriend for assistance. At the same time, he participated in face-to-face interactions with his instructor and with other classmates on the American end. Because all these interactions are of potential importance to the interpretation of the process data, it may be necessary to develop methods of recording and representing these multi-faceted, multi-lingual and multi-modal interactions (O’Halloran, 2004).

D. Linguistic Development

The second expressed goal of telecollaborative FL study is the development of linguistic competence. The great boon of telecollaborative discourse is that it offers opportunities for the longitudinal examination of the development of particular linguistic phenomena in particular interactions over specified periods of time (Belz, 2004a and b; Belz & Kinginger, 2003; Kutz & Herring, 2004). Future research in this vein will need to expand to include other linguistic phenomena. The T/V distinction seems amenable to fairly rapid development for some learners; however, other areas of the grammar may be shown to develop at various rates in telecollaboration.

E. The Role of the Instructor

Just as there is a need for studies of less commonly taught languages and partnerships that do not involve English, there is a need for more case studies of teachers conducting telecollaborative partnerships. Co-authored articles in the format of a teacher-teacher dialogue are particularly useful in understanding the situated nature of such complex learning configurations from the perspectives of the participating teachers (Belz & Müller-Hartmann, 2003; Müller-Hartmann, 2000b; Ulichny & Schoener, 1996). Furthermore, such case studies may serve as invaluable experiential models for pre-service language teachers with respect to the ever increasing demands to incorporate technology into their classrooms (Müller-Hartmann, to appear).

F. Curricular Articulation

Finally, there are no studies that I am aware of that explore the articulation of telecollaborative courses into more traditional FL curricula, although the incorporation of technology and telecollaborative methodologies

into the language curriculum has been enthusiastically embraced by many language educators. For example, is telecollaboration a suitable curricular bridge between more traditional forms of tutored language instruction and residence abroad experiences? Furthermore, there are few studies that interrogate the hybridity of media in language study, e.g., the alternation of computer-mediated and face-to-face instruction, and the influences that this alternation may have on linguistic and intercultural outcomes among learners (Schulz, 2000). There is some evidence in communication theory to suggest that medium hybridity may play a role in maximizing the efficiency of decision-making processes. For example, Olaniran (1994) reports that anonymous computer-mediated interaction was best suited to brainstorming sessions, but that subsequent face-to-face interaction proved most efficacious for evaluation and consensus reaching.

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[3] In 2000 the teacher education seminar was conducted at the Justus-Liebig-Universität in Gießen. From 2001-2004 the German institution was the Pädagogische Hochschule Heidelberg. In all cases the instructor of the teacher education seminar in Germany was Andreas Müller-Hartmann.

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